Table 1: Sociodemographics and mobility data

2,839 603: 21% 1,136: 40% 102: 22% 148: 16% 160: 2% 881: 30% (1) 193: 35% 164: 35% 1,823: 64% (1) 11: 1% 1552: 20% 122: 15% 662: 19% (2)
1,136: 40% 102: 22% 148: 16% 100: 2% 1881: 30% (1) 1993: 35% 164: 35% 1,823: 64% (1) 11: 1% 152: 20% 122: 15% 1662: 19% (2)
993: 35% 164: 35% 1,823: 64% (1) 11: 1% 1552: 20% 122: 15% 1662: 19% (2)
11: 1% 552: 20% 122: 15% 662: 19% (2)
1,048: 37% 1,227: 44%
2,376: 1, 1-2 1,175: 42% 2,414: 86% (2) 1,292: 46% 1,671: 59% 184: 18% (4) 1,238: 80% (5) 1,37: 23% (21) 1,536: 55% (10)
889: 32% (5) .,487: 53% (2) .57/1,168: 66% .22/755: 17% .,342/1,660: 80% (11) .,153/1,342: 86% .074/1,153: 85%
2,250: 2, 1-3 (50) 1,400: 2, 1-3 (50) 1,704: 1, 1-2 (50) 1,134: 2, 1-3 (51) 173: 1, 1-1 (51)
2,217: 28, 7-82 (50) 1,576: 24, 7-78 (50) 1,493: 18, 4-28 (50) 1,614: 21, 4-61 (50) 1,515: 21, 4-61 (50) 1,97: 21, 4-61 (50) 1,59: 21, 4-61 (50) 1,59: 21, 4-61 (50) 1,993: 24, 7-68 (50) 1,993: 24, 7-64 (50) 1,085: 21, 4-42 (51) 1,691: 21, 4-61 (51)

Table 1: Data are described by reporting the number of women with non-zero entries for each variable and RDS-II-weighted summary statistic (percentages for binary variables and the medians of the non-zero values with 25% and 75% weighted-percentiles for continuous variables). Missing data is shown in brackets, on first line only for factorial variables.

Table 2: Prevalence of outcomes by levels of sociogemographic factors

	Took part in comm. mobilisation	$\begin{array}{c} \text{Attended clinic} \\ 2+ \text{ times} \end{array}$	Recently tested	Taking PrEP	Know living with HIV	Taking ART	Viral supression
	N=2,725	N=2,725	N=1,121	N=710	N=1,604	N=1,293	N=1,109
Age group 40+ 30-39 25-29 20-24	193/602: 32% 386/1,135: 34% 190/601: 32% 113/446: 26%	315/603: 53% 633/1,134: 56% 327/602: 57% 196/448: 43%	89/157: 57% 254/395: 64% 198/289: 71% 190/289: 68%	24/99: 24% 41/238: 17% 31/191: 19% 24/194: 13%	398/443: 90% 638/736: 86% 220/311: 72% 83/158: 49%	368/398: 91% 553/638: 87% 169/220: 76% 60/83: 75%	327/368: 89% 474/553: 86% 130/169: 78% 42/60: 72%
18-19	7/50: 13%	16/50:~30%	$26/38:\ 67\%$	2/33:~8%	3/12: 27%	3/3: $100%$	1/3: 22%
Education No formal education Primary Secondary	269/880: 32% 303/992: 30% 317/961: 33%	453/881: 53% 523/992: 53% 511/963: 54%	205/311: 68% 263/391: 69% 288/465: 63%	39/223: 18% 39/250: 18% 44/282: 16%	496/568: 87% 463/594: 78% 383/498: 76%	424/496: 85% 408/463: 89% 321/383: 83%	378/424: 89% 340/408: 83% 256/321: 82%
Marital status Divorced Married Widowed Never married	572/1,819: 32% 15/41: 31% 170/551: 32% 131/422: 30%	973/1,822: 55% 25/41: 58% 292/551: 54% 196/422: 46%	513/773: 67% 13/20: 64% 82/141: 58% 149/234: 66%	78/504: 16% 2/10: 29% 22/96: 24% 20/145: 15%	833/1,044: 79% 19/21: 87% 349/406: 85% 140/188: 74%	690/833: 83% 18/19: 94% 324/349: 92% 121/140: 86%	577/690: 84% 13/18: 64% 285/324: 89% 99/121: 82%
Years in SW 0-2 3-6 7+	132/560: 25% 331/1,048: 32% 426/1,224: 35%	227/562: 41% 568/1,048: 55% 690/1,225: 57%	199/295: 70% 313/497: 65% 244/375: 65%	22/211: 12% 55/320: 18% 45/224: 20%	164/265: 61% 429/548: 77% 748/846: 89%	121/164: 74% 362/429: 84% 669/748: 89%	90/121: 76% 294/362: 81% 589/669: 88%
Children supported None >0 Food insecure	122/439: 28% 741/2,286: 33%	220/439: 53% 1,204/2,286: 53%	112/182: 63% 615/939: 67%	14/130: 13% 101/580: 18%	197/257: 75% 1,096/1,347: 81%	166/197: 85% 943/1,096: 86%	137/166: 81% 799/943: 85%
No Yes Has cellphone	508/1,596: 32% 355/1,129: 33%	835/1,596: 53% 589/1,129: 54%	439/676: 66% 288/445: 66%	69/436: 17% 46/274: 17%	707/920: 76% 586/684: 86%	608/707: 86% 501/586: 85%	506/608: 83% 430/501: 86%
No Yes Sex work only source of income	103/410: 26% 760/2,315: 33%	170/410: 44% 1,254/2,315: 55%	117/191: 62% 610/930: 67%	14/120: 13% 101/590: 18%	169/219: 78% 1,124/1,385: 81%	135/169: 81% 974/1,124: 86%	117/135: 87% 819/974: 84%
No Yes Living with HIV	497/1,489: 34% 366/1,236: 30%	805/1,489: 55% 619/1,236: 51%	414/639: 66% 313/482: 66%	85/444: 20% 30/266: 11%	692/850: 81% 601/754: 80%	591/692: 85% 518/601: 86%	500/591: 85% 436/518: 84%
No Yes >10 PHQ-9	342/1,121: 32% 521/1,604: 32%	550/1,121: 51% 874/1,604: 55%					
No Yes Experienced SW-stigma	744/2,261: 33% 119/464: 26%	1,191/2,261: 54% 233/464: 51%	619/949: 66% 108/172: 65%	101/584: 18% 14/126: 12%	1,045/1,312: 79% 248/292: 84%	901/1,045: 86% 208/248: 84%	759/901: 85% 177/208: 85%
No Yes Violence in last month	193/573: 34% 670/2,152: 32%	322/573: 57% 1,102/2,152: 52%	162/245: 68% 565/876: 65%	34/151: 22% 81/559: 15%	262/328: 78% 1,031/1,276: 81%	230/262: 87% 879/1,031: 85%	194/230: 83% $742/879: 85%$
No Yes Substance misuse	657/2,114: 32% 206/611: 34%	1,096/2,114: 53% 328/611: 55%	556/862: 66% 171/259: 67%	90/548: 16% 25/162: 18%	1,020/1,252: 81% 273/352: 77%	881/1,020: 86% 228/273: 84%	747/881: 85% 189/228: 83%
No Yes Social support available	608/1,974: 31% 255/751: 36%	1,028/1,974: 53% 396/751: 53%	515/793: 66% 212/328: 65%	94/515: 19% 21/195: 12%	964/1,181:81% 329/423:79%	835/964: 86% 274/329: 84%	697/835: 83% 239/274: 88%
No Yes	371/1,246: 30% 492/1,479: 34%	621/1,246: 52% 803/1,479: 54%	302/499: 61% 425/622: 70%	48/304: 17% 67/406: 17%	605/747: 81% 688/857: 79%	509/605: 84% 600/688: 87%	427/509: 83% 509/600: 86%

Table 2: For continuous exposures, the prevalence of the outcomes are reported for zero and non-zero levels of the continuous variables.

Table 3: Prevalence of outcomes by levels of mobility exposures

	Took part in comm. mobilisation	$\begin{array}{c} \textbf{Attended clinic} \\ \textbf{2+ times} \end{array}$	Recently tested	Taking PrEP	Know living with HIV	Taking ART	Viral supression
	N=2,725	N=2,725	N=1,121	N=710	N=1,604	N=1,293	N=1,109
Trips in 12 months							
None	147/524: 28%	259/524: 51%	125/195:65%	20/128: 14%	271/329: 82%	240/271: 90%	198/240: 82%
>0	716/2,201: 33%	1,165/2,201:54%	602/926: 66%	95/582: 17%	1,022/1,275:~80%	869/1,022: 85%	738/869: 85%
motivated by sex work	205/1 255 2007	222/4 255 427	0.44 /#00 0#07	00/000 1007	0=0/000 0164	F=0 /0=0 000	100/500 0107
None	397/1,355: 29%	638/1,355: 48%	341/533: 65%	60/362: 16%	670/822: 81%	579/670: 86%	488/579: 84%
>0 not motivated by sex work	466/1,370: 35%	786/1,370: 58%	386/588: 67%	55/348: 18%	623/782:~80%	530/623: $85%$	448/530: 85%
None None	322/1,052: 31%	559/1,052: 55%	291/435: 69%	42/266: 16%	507/617: 82%	440/507: 87%	368/440: 84%
>0	541/1,673: 33%	865/1,673: 52%	436/686: 64%	73/444: 17%	786/987: 80%	669/786: 85%	568/669: 85%
where did not use healthcare	341/1,073. 33/0	000/1,070. 02/0	450/000. 04/0	13/444. 11/0	100/301. 0070	009/100. 0070	300/009. 03/0
None	185/637: 30%	319/637: 52%	146/229: 65%	26/148: 18%	342/408: 83%	300/342: 89%	251/300: 83%
>0	678/2,088: 33%	1,105/2,088: 54%	581/892: 66%	89/562: 17%	951/1,196: 79%	809/951: 84%	685/809: 85%
where used healthcare	0.0/2,000.00/0	1,100/2,000.01/0	001/002. 00/0	00/0021 11/0	001/1,100. 10/0	000/001.01/0	000/000.00/0
None	680/2,257: 30%	1,163/2,257: 52%	604/942: 65%	91/593: 16%	1,059/1,315: 80%	907/1,059: 85%	762/907: 84%
>0	183/468: 40%	261/468: 58%	123/179: 69%	24/117: 22%	234/289: 80%	202/234: 87%	174/202: 86%
D : 10 11	,	,	,	,	,	,	,
Days away in 12 months	150/555 0007	074/557 5007	196/919 6507	00/141 1907	000/045 0007	0.40 /000 0007	007/040 0007
None	156/557: 28%	274/557: 50%	136/212: 65%	20/141: 13%	282/345: 82%	248/282: 89%	205/248: 82%
>0 where worked in SW	707/2,168: 33%	1,150/2,168: 54%	591/909: 66%	95/569: 18%	1,011/1,259: 80%	861/1,011: 85%	731/861: 85%
None	338/1,182: 29%	558/1,182: 48%	307/471: 66%	48/318: 14%	572/711: 80%	499/572: 87%	419/499: 84%
>0	525/1,543: 34%	866/1,543: 57%	420/650: 66%	67/392: 19%	721/893: 81%	610/721: 84%	517/610: 85%
where did not work in SW	020/1,040. 04/0	000/1,040. 0170	420/000. 00/0	01/332. 13/0	121/033. 0170	010/121. 04/0	511/010. 05/0
None	399/1,262: 32%	662/1,262: 54%	355/528: 69%	54/330: 17%	606/734: 82%	520/606: 86%	439/520: 85%
>0	464/1,463: 32%	762/1,463: 53%	372/593: 63%	61/380: 17%	687/870: 79%	589/687: 85%	497/589: 85%
near Sisters site			0.1_/ 0001 00/0	0-/ 0001 -1/0	001/0101101	000/0011 00/0	
None	324/1,143: 29%	557/1,143: 50%	286/442: 65%	40/283: 13%	577/701: 82%	501/577: 87%	414/501: 83%
>0	539/1,582: 34%	867/1,582: 56%	441/679:67%	75/427: 19%	716/903: 79%	608/716: 84%	522/608: 86%
no Sisters site							
None	369/1,241: 30%	635/1,241: 53%	331/517:65%	64/342: 20%	583/724: 80%	506/583: 87%	429/506: 84%
>0	494/1,484: 34%	789/1,484: 54%	396/604: 67%	51/368: 14%	710/880: 81%	603/710: 85%	507/603: 85%
outside Zimbabwe	200 /2 224 2267	1 100 /0 001 \$107	202/21= 2=0	0.4/505 4007	1 001 /1 01 1 01 17	001/1001 0707	
None	660/2,231: 30%	1,122/2,231: 51%	602/917: 67%	94/585: 16%	1,061/1,314: 81%	904/1,061: 85%	756/904: 84%
>0	203/494: 41%	302/494: 62%	125/204: 62%	21/125: $19%$	232/290: 79%	205/232:~88%	180/205: 89%
inside Zimbabwe	000/000 2007	940/000 5007	179/970 0007	05 /179 1407	949/410 0007	200 /242 0007	0.46 /200 2007
None >0	206/688: 30% 657/2,037: 33%	348/688: 52% 1,076/2,037: 54%	173/270: 66% 554/851: 66%	25/173: 14% 90/537: 18%	343/418: 82% 950/1,186: 80%	300/343: 88% 809/950: 85%	246/300: 82% 690/809: 85%
in different linguisic area	051/2,051. 55/0	1,070/2,037. 34/0	554/651. 00/0	90/337. 10/0	950/1,100. 00/0	009/950: 05/0	090/009. 00/0
None	736/2,373: 31%	1,235/2,373: 53%	634/968: 67%	100/594: 17%	1,140/1,405: 81%	984/1,140: 86%	829/984: 84%
>0	127/352: 37%	189/352: 54%	93/153: 61%	15/116: 14%	153/199: 77%	125/153: 81%	107/125: 86%
in the same linguisic area	121/002. 01/0	100/002. 01/0	00/100. 01/0	10/110. 11/0	100/100. 1170	120/100. 01/0	101/120. 00/0
None	241/779: 31%	395/779: 52%	196/309: 65%	30/204: 15%	384/470: 82%	334/384: 87%	277/334: 83%
>0	622/1,946: 32%	1,029/1,946: 54%	531/812: 66%	85/506: 17%	909/1,134:80%	775/909: 85%	659/775: 85%
at mine, growthpoint, or farm		, , ,	,	,	7 7	,	,
None	511/1,658: 31%	844/1,658: 52%	437/690: 64%	78/456: 18%	774/968: 79%	670/774: 87%	570/670: 85%
>0	352/1,066: 34%	579/1,066: 55%	290/431: 69%	37/254: $15%$	518/635: 82%	438/518: 84%	365/438: 84%
at a town or city		/-		/ :			
None	297/1,070: 28%	537/1,070: 52%	269/415: 66%	38/269: 13%	536/655: 82%	457/536: 86%	378/457: 83%
>0	566/1,654: 35%	886/1,654: 54%	458/706:66%	77/441: 19%	756/948: 79%	651/756:~86%	557/651: 86%
Distance travelled in 12 months							
None	147/524: 28%	259/524: 51%	125/195: 65%	20/128: 14%	271/329: 82%	240/271: 90%	198/240: 82%
>0	716/2,201: 33%	1,165/2,201: 54%	602/926: 66%	95/582: 17%	1,022/1,275: 80%	869/1,022: 85%	738/869: 85%

Table 3: For continuous exposures, the prevalence of the outcomes are reported for zero and non-zero levels of the continuous variables.

Table 4: Effects of sociogemographic factors and mobility

	Took part in comm. mobilisation	$\begin{array}{c} \text{Attended clinic} \\ \text{2+ times} \end{array}$	Recently tested	Taking PrEP	Know living with HIV	Taking ART	Viral supression
	N=2,725	N=2,725	N=1,121	N=710	N=1,604	N=1,293	N=1,109
Age group 40+ 30-39 25-29 20-24 18-19	(base) 1.08 (0.92 to 1.28) 0.99 (0.81 to 1.20) 0.78 (0.62 to 0.98) 0.49 (0.24 to 1.02)	(base) 1.12 (1.00 to 1.25) 1.02 (0.89 to 1.16) 0.90 (0.78 to 1.05) 0.69 (0.43 to 1.11)	(base) 1.28 (1.07 to 1.54) 1.34 (1.11 to 1.62) 1.24 (1.02 to 1.50) 1.42 (1.04 to 1.95)	(base) 0.82 (0.50 to 1.34) 0.73 (0.42 to 1.27) 0.65 (0.35 to 1.20) 0.19 (0.03 to 1.42)	(base) 0.96 (0.91 to 1.01) 0.76 (0.68 to 0.84) 0.61 (0.52 to 0.72) 0.25 (0.09 to 0.73)	(base) 0.93 (0.89 to 0.98) 0.84 (0.77 to 0.91) 0.72 (0.60 to 0.87) 1.03 (0.96 to 1.11)	(base) 0.96 (0.91 to 1.01) 0.87 (0.79 to 0.95) 0.74 (0.60 to 0.91) 0.52 (0.13 to 2.02)
Education No formal education Primary Secondary Marital status	(base) 0.97 (0.82 to 1.14) 1.10 (0.94 to 1.29)	(base) 1.04 (0.94 to 1.16) 1.01 (0.90 to 1.12)	(base) 1.00 (0.88 to 1.15) 0.90 (0.79 to 1.03)	(base) 1.07 (0.65 to 1.76) 1.08 (0.65 to 1.79)	(base) 0.92 (0.87 to 0.98) 0.90 (0.83 to 0.96)	(base) 1.04 (0.99 to 1.10) 1.00 (0.94 to 1.07)	(base) 0.95 (0.90 to 1.02) 0.93 (0.87 to 1.00)
Divorced Married Widowed Never married Years in SW	(base) 0.92 (0.50 to 1.66) 0.98 (0.82 to 1.18) 0.97 (0.80 to 1.17)	(base) 1.20 (0.89 to 1.62) 0.98 (0.87 to 1.10) 0.85 (0.74 to 0.97)	(base) 1.06 (0.73 to 1.54) 0.96 (0.80 to 1.15) 0.94 (0.82 to 1.07)	(base) 1.09 (0.27 to 4.46) 0.87 (0.52 to 1.48) 0.84 (0.50 to 1.40)	(base) 1.15 (0.95 to 1.38) 0.98 (0.92 to 1.04) 0.93 (0.83 to 1.04)	(base) 1.18 (0.99 to 1.42) 1.07 (1.02 to 1.12) 1.04 (0.94 to 1.15)	(base) 0.76 (0.49 to 1.17) 0.99 (0.93 to 1.05) 1.00 (0.91 to 1.09)
0-2 3-6 7+	(base) 1.42 (1.16 to 1.73) 1.49 (1.21 to 1.85)	(base) 1.34 (1.17 to 1.54) 1.39 (1.20 to 1.61)	(base) 0.93 (0.83 to 1.06) 1.05 (0.91 to 1.22)	(base) 1.70 (0.99 to 2.92) 1.66 (0.91 to 3.05)	(base) 1.29 (1.13 to 1.47) 1.32 (1.16 to 1.50)	(base) 1.19 (1.05 to 1.35) 1.23 (1.09 to 1.38)	(base) 1.17 (1.02 to 1.36) 1.21 (1.05 to 1.40)
Children supported Food insecure Has cellphone Sex work only source of income Living with HIV	1.11 (1.03 to 1.20) 0.99 (0.87 to 1.12) 1.26 (1.04 to 1.53) 0.98 (0.86 to 1.12) 1.17 (1.03 to 1.34)	1.03 (0.97 to 1.08) 0.99 (0.90 to 1.07) 1.32 (1.16 to 1.51) 0.97 (0.89 to 1.06) 1.20 (1.09 to 1.31)	1.08 (1.01 to 1.15) 1.00 (0.91 to 1.11) 1.08 (0.93 to 1.24) 1.00 (0.90 to 1.12)	1.09 (0.88 to 1.35) 0.96 (0.66 to 1.38) 1.62 (0.96 to 2.71) 0.72 (0.46 to 1.14)	1.01 (0.97 to 1.04) 1.07 (1.01 to 1.13) 1.03 (0.94 to 1.12) 1.01 (0.95 to 1.07)	1.01 (0.98 to 1.04) 0.96 (0.91 to 1.01) 1.10 (1.00 to 1.20) 1.01 (0.96 to 1.06)	0.99 (0.96 to 1.03) 1.00 (0.95 to 1.06) 0.96 (0.90 to 1.03) 1.01 (0.95 to 1.06)
>10 PHQ-9 Experienced SW-stigma Violence in last month Substance misuse Social support available	0.76 (0.63 to 0.93) 0.97 (0.83 to 1.13) 1.14 (0.98 to 1.32) 1.11 (0.96 to 1.27) 1.16 (1.02 to 1.33)	1.00 (0.90 to 1.13) 0.95 (0.86 to 1.05) 1.02 (0.92 to 1.13) 1.04 (0.95 to 1.15) 1.11 (1.02 to 1.21)	0.98 (0.85 to 1.12) 0.99 (0.88 to 1.12) 0.99 (0.87 to 1.12) 0.99 (0.88 to 1.10) 1.11 (1.00 to 1.23)	0.59 (0.34 to 1.02) 0.62 (0.43 to 0.90) 0.89 (0.58 to 1.36) 0.52 (0.32 to 0.86) 1.02 (0.70 to 1.48)	1.08 (1.01 to 1.15) 1.01 (0.95 to 1.09) 0.98 (0.92 to 1.06) 0.96 (0.90 to 1.03) 0.99 (0.93 to 1.05)	0.94 (0.88 to 1.01) 0.98 (0.92 to 1.04) 0.96 (0.90 to 1.03) 0.96 (0.90 to 1.03) 1.03 (0.98 to 1.08)	1.01 (0.95 to 1.09) 1.01 (0.94 to 1.07) 1.00 (0.93 to 1.07) 1.03 (0.97 to 1.10) 1.02 (0.96 to 1.07)
Trips in 12 months motivated by sex work not motivated by sex work where did not use healthcare where used healthcare	1.08 (1.04 to 1.12) 1.09 (1.04 to 1.14) 1.06 (1.00 to 1.12) 1.07 (1.03 to 1.11) 1.18 (1.06 to 1.30)	1.02 (1.00 to 1.05) 1.04 (1.01 to 1.08) 1.00 (0.96 to 1.04) 1.02 (1.00 to 1.05) 1.04 (0.97 to 1.12)	1.00 (0.97 to 1.03) 1.01 (0.97 to 1.05) 0.99 (0.94 to 1.03) 0.99 (0.96 to 1.02) 1.06 (0.97 to 1.16)	0.97 (0.87 to 1.09) 0.95 (0.81 to 1.11) 1.00 (0.86 to 1.18) 0.95 (0.84 to 1.07) 1.24 (0.92 to 1.68)	0.99 (0.97 to 1.01) 0.99 (0.97 to 1.02) 0.98 (0.96 to 1.01) 0.99 (0.97 to 1.00) 1.03 (0.97 to 1.08)	1.00 (0.98 to 1.01) 1.00 (0.98 to 1.03) 0.99 (0.97 to 1.01) 1.00 (0.98 to 1.01) 1.01 (0.96 to 1.06)	1.00 (0.98 to 1.02) 0.99 (0.96 to 1.02) 1.02 (0.99 to 1.04) 1.00 (0.98 to 1.02) 1.01 (0.96 to 1.07)
Days away in 12 months where worked in SW where did not work in SW near Sisters site no Sisters site outside Zimbabwe inside Zimbabwe in different linguisic area in the same linguisic area at mine, growthpoint, or farm at a town or city	0.99 (0.97 to 1.02) 0.99 (0.96 to 1.02) 0.98 (0.93 to 1.04) 0.99 (0.95 to 1.02) 0.99 (0.96 to 1.03) 0.99 (0.96 to 1.05) 0.99 (0.96 to 1.02) 0.99 (0.96 to 1.02) 0.99 (0.96 to 1.02) 0.99 (0.93 to 1.04) 0.99 (0.95 to 1.04)	0.99 (0.97 to 1.01) 1.00 (0.98 to 1.02) 0.96 (0.92 to 1.01) 0.99 (0.96 to 1.01) 0.99 (0.96 to 1.02) 0.98 (0.94 to 1.02) 0.99 (0.97 to 1.01) 1.01 (0.97 to 1.06) 0.99 (0.97 to 1.01) 1.00 (0.97 to 1.04) 0.98 (0.96 to 1.01)	0.98 (0.95 to 1.01) 0.98 (0.95 to 1.02) 0.96 (0.91 to 1.01) 0.97 (0.93 to 1.01) 0.99 (0.96 to 1.03) 0.96 (0.89 to 1.04) 0.98 (0.96 to 1.01) 0.96 (0.88 to 1.04) 0.98 (0.96 to 1.01) 1.00 (0.94 to 1.05) 0.96 (0.92 to 0.99)	0.95 (0.87 to 1.04) 0.98 (0.90 to 1.08) 0.85 (0.71 to 1.02) 0.94 (0.84 to 1.05) 0.96 (0.83 to 1.11) 0.97 (0.81 to 1.16) 0.95 (0.86 to 1.05) 0.91 (0.69 to 1.22) 0.95 (0.86 to 1.05) 0.89 (0.72 to 1.11) 0.93 (0.84 to 1.04)	1.00 (0.99 to 1.02) 1.01 (1.00 to 1.02) 0.98 (0.96 to 1.01) 1.00 (0.98 to 1.02) 1.00 (0.99 to 1.02) 1.00 (0.99 to 1.03) 1.00 (0.99 to 1.02) 1.02 (0.99 to 1.06) 1.00 (0.99 to 1.01) 1.00 (0.97 to 1.04) 1.00 (0.99 to 1.02)	1.00 (0.99 to 1.01) 1.00 (0.99 to 1.01) 0.99 (0.97 to 1.02) 0.99 (0.97 to 1.01) 1.01 (1.00 to 1.02) 1.02 (1.00 to 1.03) 0.99 (0.98 to 1.01) 0.98 (0.93 to 1.04) 1.00 (0.98 to 1.01) 0.99 (0.96 to 1.02) 1.00 (0.99 to 1.01)	1.00 (0.98 to 1.01) 0.99 (0.98 to 1.01) 1.00 (0.98 to 1.03) 1.01 (0.99 to 1.02) 0.99 (0.96 to 1.01) 0.98 (0.93 to 1.02) 1.00 (0.99 to 1.01) 1.02 (1.01 to 1.04) 1.00 (0.98 to 1.01) 1.00 (0.97 to 1.02) 1.01 (0.99 to 1.02)
Distance travelled in 12 months	1.01 (1.01 to 1.02)	1.00 (1.00 to 1.01)	1.00 (0.99 to 1.00)	0.99 (0.98 to 1.01)	1.00 (0.99 to 1.00)	1.00 (1.00 to 1.00)	1.00 (1.00 to 1.00)

Table 4: Risk ratios for outcomes by levels of sociogemographic factors adjusted for age, and mobility exposures adjusted for all sociodemographic factors. For the days away exposures, the effects have been scaled to show the effect of each additional 30 days away; the effect of distance travelled have been scaled to show the effect of each additional 100km travelled.

Table 5: Mediation analysis

Direct and indirect effects Adjusted risk ratio (95% CI)

		· ·
Took part in community mobilisation	$\begin{array}{c} ARR_{A \to Y} \\ ARR_{A \to M_1 Y} \\ ARR_{A \to M_2 \to Y} \end{array}$	1.07 (1.01, 1.12) 1.03 (0.98, 1.07) 1.01 (0.99, 1.04)
Attended clinic two or more times	$\begin{array}{c} ARR_{A \to Y} \\ ARR_{A \to M_1 Y} \\ ARR_{A \to M_2 \to Y} \end{array}$	$\begin{array}{c} 1.02 \; (0.98, 1.06) \\ 1.02 \; (0.99, 1.05) \\ 1.01 \; (0.99, 1.03) \end{array}$
Recently tested	$\begin{array}{c} ARR_{A \to Y} \\ ARR_{A \to M_1 Y} \\ ARR_{A \to M_2 \to Y} \end{array}$	1.00 (0.95, 1.05) 1.00 (0.97, 1.04) 0.99 (0.97, 1.02)
Taking PrEP	$\begin{array}{c} ARR_{A \to Y} \\ ARR_{A \to M_1 Y} \\ ARR_{A \to M_2 \to Y} \end{array}$	0.92 (0.76, 1.13) 1.02 (0.91, 1.13) 0.98 (0.89, 1.07)
Know living with HIV	$\begin{array}{c} ARR_{A \to Y} \\ ARR_{A \to M_1 Y} \\ ARR_{A \to M_2 \to Y} \end{array}$	1.00 (0.97, 1.03) 0.99 (0.98, 1.01) 1.00 (0.99, 1.01)
Taking ART	$\begin{array}{c} ARR_{A \to Y} \\ ARR_{A \to M_1 Y} \\ ARR_{A \to M_2 \to Y} \end{array}$	1.01 (0.99, 1.03) 1.00 (0.98, 1.02) 1.00 (0.99, 1.01)
Viral supression	$\begin{array}{c} ARR_{A \to Y} \\ ARR_{A \to M_1 Y} \\ ARR_{A \to M_2 \to Y} \end{array}$	1.01 (0.97, 1.04) 1.00 (0.98, 1.03) 1.00 (0.99, 1.02)

Table 5: Mediation analysis restricted to the 2,201 women with complete data who travelled at least once in the previous 12 months. M_1 is the natural log of the distance, and M_2 is the total duration of time spent away.